A NEW CALENDAR FOR A NEW WORLD

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WE are in the midst of war, a relentless war, a struggle the outcome of which will determine the course of the world. At every turn we are confronted with the urgent need for conservation of materials, the need for conservation of man-power. Speed and more speed has become the watchword in the plants, in the offices and on our far-flung battle fronts. Men of production and military genius are planning and guiding our armies of workers in the plants and our forces in the field toward ever-increasing achievements.

Yet in the face of this dire need for more goods to feed the ever-widening mouths of vast factory machines, in the face of military demands unprecedented in history, our attempts to harness and utilize to the fullest the vast resources and man-power of this great nation are being sabotaged daily by a calendar that is without plan or order.

To reconcile orderliness, split-second production and intricate coordination with the present calendar in which in every month the day and date is different, with quarters that are consistently unequal, presents in itself a separate task that confounds the minds of geniuses.

It appears to be one of life's ironies that these men of unquestioned production ability, with the finest machines in the world, faced with this gigantic task, are satisfied to make decisive world plans under the present calendar that handicaps and confuses them at every turn.

Some of these men, favorable to The World Calendar of 12 months and equal quarters, contend its adoption is a matter to be delayed until the war is won. Yet none of them would hesitate a second to halt factory production if, by this stoppage, a few minutes could be saved or a better weapon of war would result.

The adoption of The World Calendar would effect no stoppage of work; quite to the contrary. Its adoption would bring orderliness and an assurance in planning and a certainty in comparison. It would avoid the losses now occasioned by the translation of time from a frenzied muddle of undependable dates to a never-changing orderliness of reliable dates.

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LATIN AMERICA'S COMING OF AGE

By George Kent

"*TEN years from today,*" Walter Pitkin said the other day, "*the United States will be absolutely unrecognizable.*"

Scientific invention, enormously speeded up by the war, will have wrought miracles that will change the face of the country and the people who dwell in it.

The change that war-born facilities will bring to Latin America will be even greater, for the nations of the Southern Hemisphere have farther to go. Changes produced by modern science will be more apparent.

Perhaps the most significant of these changes will be the passing of colonialism—and the colonial economy which has characterized the life of the Good Neighbor republics. In its place will come, indeed has already come, industrialism. And with it a vast train of improvements in the daily lives of the people that will amount to nothing less than an industrial evolution, one more important than any political revolution of the past.

Up until recently, the Latin-American republics have been producers of raw materials—and little more. From their rich lands they mined grain and beef and coffee and tobacco and sugar and tin and copper and nitrates, and sold them to the industrial nations of the world. In payment they received factory products. Foreign nations built the railroads of Latin America; controlled its mining, its shipping; sold them its toothbrushes, shirts, and shoes. Virtually nothing was made at home.

Under this system, a few Latin Americans prospered. But the masses remained poor. Poverty brought with it the usual unpleasantnesses of disease, illiteracy and crime. For this, no one was really to blame. The fault could not be laid at the door of the governments, nor of the rich men. The system of producing raw materials dooms its producers to a low standard of living. This is the colonial system which for survival must depend upon low priced labor.

Colonialism is now definitely on the wane. The process has been under way for the last two decades but the war has accelerated it immensely. Cut off from foreign imports by the shortage of shipping, the Southern republics have been forced to rely on their own small factories to supply a normal quantity of consumer goods. The Government of the United States has been lending money to enable the factory owners to expand, and lately has followed this up by sending to the Southern countries American machinery rendered idle by the war.

The result of all this is industrialization which for speed of growth is

almost without parallel. Argentina and Brazil and Mexico are actually exporting manufactured goods to other nations of Latin America. And not flimsy little articles either. Brazil, for example, has been exporting elevators wholly made in Brazil to Chile. Uruguay, smallest country in South America, is completing a dam on the Rio Negro which will give it one of the largest power plants in the world, enough to make it a vital factor in any industrial development of the post-war era. In the north of Brazil, the fabulously rich iron deposits of Itabyra are being tapped and connected by railroad with the sea; it is destined to become the Pittsburgh of South America.

Airplanes are already flying cargoes to the remotest corners of the Continent, and when the war is over they will unite the various republics as they have never before been united. Brazil and Argentina are already producing their own planes. And with steel and aluminum and rubber at their disposal they will produce more and better planes. Distances, which for so long stood as a bar to progress, will vanish and this is certain to intensify the speed of the process of industrialization. If in ten years the United States is unrecognizable; Latin America will be virtually reborn.

This is no gazing into the crystal ball. These are facts recognized and attested by every economist and statesman who knows Latin America. What will this mean to the people of the 20 republics? With industrial development will come better wages and this higher earning power will give the people good food, more comfortable dwellings, finer schools. In short, they will savor the advantages of an industrial civilization.

There will also arrive the defects of such a civilization. And this unpleasant fact brings me to the point of the article I am writing. The people of Latin America stand on the threshold of a new era. They stand on the ragged doormat of the past looking into a new and wonderful house. It is theirs to make what they will of it. The way they furnish and adorn it will decide whether it becomes a place of smooth and serene life. To guide them they have all the years of trial and error of all the other industrial nations; they have only to heed the mistakes of others in order to build a truly brave new world.

One fault of the older industrialisms has been the calendar. A small one perhaps but nevertheless fundamental and of far-reaching consequences. Why shouldn't Latin America, as it emerges from colonialism to international maturity, set an example for the world by adopting a modern method of keeping track of the days and months and years?

That the old calendar has hampered the business of living in the twentieth century is a fact, also attested by statesmen, and by every publicist of importance. All of them agree that the calendar is outmoded, that it needs squaring and shaping to fit a streamlined age.

Think of the calendar and what have we? January has 31 days, Febru-

ary has 28 days, March has 31 days, April 30, and so on; a succession utterly without logic. There is a childish rhyme to it—but no reason; the rhyme being the only way we can remember which month has 31 and which has 30. In all countries, holidays or fiestas wander from year to year. We never know on what day a holiday will fall. We must consult the calendar to discover when. This holds for anniversaries. The disorder and unbalance of it is a nuisance and a time waster.

There have been many systems of calendar change but all have fallen by the wayside, discredited for one reason or another; only one has survived. This is the so-called World Calendar of 12 months and equal quarters. The League of Nations thought enough of it to submit it to members and non-members for their opinions. It received recognition among the nations of Latin America.

But for the slowness of League machinery, it might today be the calendar for all peoples everywhere. Delay succeeded delay—and then came war. However, an American woman with sparkling eyes, the same who convinced the League of its merit many years ago at Geneva, has kept it before the world. Throughout the United States, Canada and Latin America and Europe she has written and talked and circulated material until today this improved calendar is recognized as a vital need for the present, one which the post-war surge of zeal for a better world will make a reality.

This calendar attempts no violence with the old Gregorian arrangement of time. It simply modifies the ancient calendar enough to make it a more reasonable guide to the days and months. The year is divided into equal quarters. The first month of each quarter has 31 days: thus January, April, July and October have 31, these being the first months of the four quarters. All the other months have 30 days.

Actually, no great alteration in the old is necessary. Six of the months retain their present quota of days, without change. March, August and May each lose a day, April gains one and February gains two. A picture of the two calendars makes the point clear. But, one may ask, what are the advantages of a calendar involving so few changes to the average resident of Latin America or for that matter to average men and women everywhere?

The new instrument has, to begin with, the great consoling feature of being fixed and immutable for all time. It cannot change. The year starts on a Sunday not once but always, every year henceforth, and in the same way it ends on a Saturday. If you were born on, let us say, Wednesday, April 11, your birthday will always fall on Wednesday. So, too, every anniversary, fixed feast-day, saint's day and church festival. In this beautiful geometrical pattern of days and months, the weekday and the month-day are irrevocably tied one to the other.

With such a calendar it becomes a simple matter of shifting holidays so that they fall where they will do the most good; on Mondays, for example, where they can follow immediately after Sundays to give the people two consecutive days of relaxation. The grouping of holidays appeals greatly to employers of labor, for they have found that a week broken by single, one-day holidays is usually a week of poor production.

Business men like it for other reasons. The simple, well-nigh perfect alignment of days, weeks and months renders simple the keeping of accounts and the compilation of comparative statistics. It makes possible more careful planning of budgets and programs and payments. Educators like it, for it makes the laying out of the school year a far easier job. Indeed everybody save the utterly idle and lackadaisical, everbody who deals in one way or another with time, hails the new World Calendar as a boon to order, and a relief from the constant consulting of our present grasshopper calendar.

The alert reader who has taken out his pencil and added up the four quarters, each totaling 91 days, will exclaim, "Aha—your calendar has only 364 days! What about the 365th?"

Well done, my wide-awake friend, for it brings us to perhaps the most beautiful feature of The World Calendar. The 365th day has not been forgotten. It is an extra Saturday and it follows December 30 and will be known as the World Holiday, December W. The double Saturday is an ingenious device which makes possible a calendar which moves in an orderly mathematical procession, beginning on a Sunday, ending on a Saturday.

The second Saturday, or December W, Miss Achelis proposes we celebrate as a World Holiday. On this quiet, almost silent period of 24 hours all over the world every man, woman and child of all the nations foregoes work and pays homage to peace and harmony. It can be made the most gracious of all the year's holidays. In leap years, there will be another extra Saturday, June W, to follow June 30. This can be celebrated every fourth year as a second day of days to honor great events in science or art, or any great cause that stirs the united soul of humanity.

To Latin America, as it stands at the beginning of a new era, The World Calendar is an opportunity and a symbol of a new world federation—one that will have learned the lessons of other ages and banished their faults; uniting the world into one large family in which every nation has its important part to play, is respected and honored for what it is.

GIFTS ANNIVERSARIES and PROFITS

By Al Block, President, Dextor Ltd., Radio City, New York

IT appears to be one of life's ironies and one of the jewelers' burdens that a man whose living depends on supplying and repairing watches and clocks, which permit the world to live with exact precision, must labor through life doing business with, and by, a calendar that cannot be depended upon from one week to the other.

To have an irate customer impatiently complain because the watch she bought three months ago has lost six seconds and to know that the same customer couldn't name the day of her next birthday has always seemed to me a little far-fetched.

Manufacturers spend thousands of dollars installing time-clock systems that do everything but write the pay-check and then find they have to start "thirty days hath September, April, June and November" to discover whether or not a one hundred thousand dollar contract can be delivered on time.

Our calendar today, the one by which we were born, live, work and die, is an undependable, disloyal, frivolous, wasteful saboteur.

Just, for example, let's take the quarters that make up our year. The first quarter is two days shorter than either of the last two. The second quarter doesn't match any of them. The jeweler in checking his sales for this quarter and comparing them with the same period last year can easily get the impression that because he is taking in more money his business is on the upgrade.

He can well be living in a fool's paradise because last year's quarter may have had fewer Saturdays or a forgotten holiday that made for a long week-end.

Casual comparisons of business periods in the jewelry business are as hazardous as a large investment in costume jewelry. Graduation days, national holidays with attendant reduction in volume wander haphazardly throughout the months. Each year's sales plan, each year's buying schedule, even each season's inventory depends on the vagaries of a calendar that has the dependency of a skip-buyer.

It seems that the solution to this perplexing, confusing, irrational keep-

ing of dates is The World Calendar which is sponsored by a non-profit organization, the only selfish aim of which is to get the international adoption of this uniform, perpetual plan by January 1, 1945.

The World Calendar divides the year into four equal quarters, each of 91 days. Four times 91 makes 364 days. The extra day, December W, which balances the book of the year, has been placed after December 30. It is a World Holiday, a time when the whole world can devote 24 hours to recreation or rest or religious or international observances.

When those extra hours pile up, which every four years give us an extra day, according to The World Calendar plan that extra day follows June 30. It will be known as June W or World Leap-Year Holiday.

By this orderly rearrangement of the days everybody wins.

The merchant can plan ahead, he can be sure that Christmas will always fall on Monday. Because the school and college year and study schedules remain constant year after year, undisturbed by the floating holidays which force distorted school sessions, the jeweler can anticipate a year in advance the heretofore erratic graduation and commencement periods.

Buying can become more assured, inventories can be better controlled, sales can be anticipated with keener foresight. No longer need expensive watches, costly pins or "faddish" merchandise involving a large investment be carried into the next season.

There will be no unanticipated long week-ends to close the stores or to add to the confusion of last-minute shopping. A jeweler can look at the books, compare this quarter with last year's quarter and know instantly to the tenth of 1 per cent whether business is better or worse. There have been no extra days nor holidays to throw the quarters out of balance.

Because the days remain the same, year in and year out, a system of sales reminders of anniversary gifts can be mailed with a certain knowledge that the husband has no one to blame but himself if he forgets to buy the birthday or anniversary present for the "little woman."

On the credit side of the jewelry business The World Calendar has a definite plus advantage. Collection experiences of insurance and finance jewelry companies show conclusively that payments falling due on or near pay-days bring fewer delinquencies. Insurance officials of industrial companies place this difference at more than 25 per cent. Credit houses can arrange for Friday and Saturday payments with the knowledge that all types of buyers no matter how they are paid will have their pay-check on or near the day payments are due.

Taxes have become increasingly a burden on jewelry store operators and here, too, The World Calendar makes for definite days and dates when taxes must be paid. There will be no final tax days falling on Sunday or on

Saturday with the attendant confusion and the need and demand for careful accounting if penalties are to be avoided.

On the personal side of the ledger the four quarterly payment dates of the Federal Income Tax, the 15th of March, June, September and December, will no longer shift awkwardly, as these quarterly payments will all fall due on Fridays of the respective months.

For those who operate on borrowed capital, and who does not these days, the plan of definite days and dates helps both the lender and the borrower. Under the present system, wherein the first quarter has 90 or 91 days, the second 91 and the remaining third and fourth 92, custom still prevails that a 90-day note represents a quarter-year. This disadvantage to the borrower or the lender is apparent. In The World Calendar year of exactly equal quarters, each with 91 days, a quarterly note can be figured as an exact fourth of the annual amount. A 30-day note could be figured as one-third of the quarter since in a 31-day month, the first month of each quarter, the extra day is the fifth Sunday.

Then there is the matter of employees and employees' pay. With The World Calendar each month has exactly 26 weekdays plus Sundays. Neither the 10 per cent difference between February and other months or the extra Saturdays and Sundays are left to exact a greater effort from the sales person or greater burden for the employer.

The advantages of The World Calendar as they affect business in general and the jewelry business in particular continue to multiply as the orderliness and the fixed dates of the calendar impress themselves on your mind. A shifting calendar plays havoc with the retail merchants' merchandising plans.

The World Calendar promises greater convenience, more profit, less uncertainty and a greater business positiveness possible only by this perpetuity of agreeing days and dates.

NEW TIME-PLAN FOR NEW WORLD

By Elisabeth von Hesse

More and more I am convinced we must have a different Time-Plan to accommodate our changing world. It seems unbelievable that we have held to this cumbersome, outmoded method of computing time for so long when we have made such progress in every other field. We must awaken to the fact that we need something better. The new World Calendar, with its mathematical precision, its orderly division of time-periods is easily understood. Its scientific correctness offers a practical, usable time-plan for daily use in every field of business, of education and of home activities. It is just what is needed to economize on time and assist every nation in making "the crooked (paths) straight and the rough places plain." Let each of us do his part to bring this new World Calendar into being as soon as possible. It will expedite International Unity and World Peace. We should use every device known to man to accomplish this.

THINGS I NEVER KNEW 'TIL NOW

Unusual calendar facts assembled largely from
The Romance of the Calendar *by P. W. Wilson*

George Washington never celebrated his birthday on February 22. Born February 11, he was 20 years old when the Colonies adopted the Gregorian calendar which added 11 days to his age. His first birthday party on February 22 was given by friends and was celebrated at Valley Forge in 1778.

In Japan, 1943 is the 2,603d year of their calendar, strangely enough the Year of the Goat. 1941 was, appropriately, the Year of the Snake. Pearl Harbor was Monday, December 8, in Nippon. 1942 was the Year of the Horse.

Englishmen went to bed September 2, 1752, and when they got up next morning found the date had been set as September 14. Guild leaders, the Labor organizers of that day, tried to get 11 days' pay for their members, for time lost overnight.

A plane pilot, taking off from a London airport January 6, would find when he landed in Belgrade the next morning Christmas trees and jingle bells, for it would be Christmas morning in Yugoslavia.

Easter wavers between March 22 and April 25, bringing gray hairs to buyers of Easter hats and spring dresses, gray hairs to business firms which promise 90-day deliveries only to find some quarters have but 62½ working days.

Calendar makers are faced with 28 different combinations or kinds of months and 14 different calendar years in making up the calendar.

It was Christmas in Moscow when it was January 7 in New York.

There could be 10 Sundays in a leap-year February if you commuted the 28 miles between Alaska and Siberia each week during the month, starting from Alaska on Sunday, February 1 of the leap year.

Calendar makers passed from 1 B. C. to 1 A. D., disregarding the Zero year, so that there are only 1,942 years since 1 B. C. rather than 1,943.

Jews end the seven-day week with one day of rest. Republican France used a 10-day week; Napoleon returned to a seven-day week. Soviet Russia had a five- then six-day week until 1941.

We gain a few seconds every year in spite of the addition of leap year and 3,323 years from the date of the beginning of the Gregorian calendar we'll have to drop a leap-year day.

January 1, 1943, was the 2,430,726th day of the Julian Day calendar.

March 25 was picked as the beginning of the old Roman year and the Bank of England and Church of England still begin their fiscal year on March 25.

The Hindu day begins at sunrise, the Jewish day at sunset and the Christian day at midnight.

Julius Caesar named January 1 as the first day of the New Year, because that marked the date of a then festive period, and rather than start the year on March 25 and cause dissention he agreed to January 1.

Alaska woke up July 17, 1941, with a terrible hangover and a bill for celebration which exceeded half a million dollars only to find that the 200th birthday party celebrated the day before should have been postponed until July 28. You can depend on Russia's soldier but not on their calendar.

Thanksgiving as an official holiday is less than 80 years old and only became official in some of the states shortly before the last World War.

Decoration Day, or Memorial Day, celebrates its 76th birthday this year. A legal holiday, it is not universally celebrated; some states remember their dead early in May, others in April.

The feast-days and the fast-days and the days when crops should be planted were a Roman secret known to none but the priests and lawyers who charged for this information. Flavius, a slave who made good, discovered these secret dates, stole them and published them in bulletin form, stopping that racket.

Spinoza says there is no time, it's a mode of thought or a rate of imagination.

Grover Whalen's time capsule buried at the New York World's Fair in 1939, to be opened 5,000 years later, gave the date according to the Gregorian calendar, the Chinese, Mohammedan, Jewish, and, to make sure they would know for sure what the date would be 5,000 years from now, included astronomical readings as further proof.

If your ancestors were born December 31, 1844, in Manila, they never had a birthday as that date was lost in the Philippine Islands due to calendar changes.

Several magazines published in Yugoslavia carry four different date lines. One, the date according to the Gregorian calendar, another according to the Julian calendar, a third for the Jewish subscribers, and a fourth the date according to the Mohammedan lunar calendar.

The 13th of the month occurs on Friday more often than any other day of the week. The calendar repeats every 400 years and in the cycle the 13th falls on Friday 688 times, on Sunday and Wednesday 687.

Robert Louis Stevenson is the only man known to history who had no birthday because he gave it to a little girl whom he found crying because she had been born on Christmas Day and so felt she had no birthday.

In Japan if a child is born in December he is two years old in January, although he has been on earth only a month. Japanese children automatically become a year old at the time of their birth.

Nations have only recently begun to agree on a date for the year's beginning. The early Romans began the year on March 1, Egyptians on July 19, the Greeks on July 1, medieval Europeans on March 21 or December 25, and the Chinese New Year wanders as widely as the Jewish New Year.

Because its readers come from many racial groups, a magazine distributed in the Near East and India is dated according to six different calendars—the Gregorian, Julian, Jewish, Mohammedan, Coptic and Iranian.

According to the Aztec Calendar Stone, believed cut in the first or second century A. D., the calendar of ancient Mexico contains 18 months of 20 days each, with five extra days at the end of the year called *Nemontemi* meaning useless.

It was only in the fourth century or near the end of the third that the birth of Jesus came to be celebrated on December 25, the day of Winter Solstice at that time, previously given over to the celebration of the rebirth of the sun.

The first reference and use of *Anno Domini* is believed to have been made by Reginald, King of the Isle of Man, in 1219, in a document rendering allegiance to the Pope.

Omar Khayyam was more than a "tent maker," he was a mathematician appointed by Sultan Jalal ad Din Malik Shah in 1074 A. D. to cooperate with astronomers in an arrangement of the Persian year.

Because the royal astronomers did not mark an eclipse on their calendar, thus causing a near panic among the unwarned populace, King Chung K'ang of China ordered them beheaded in about 1960 B. C.

That all Palestine might know the beginning of the Jewish New Year and start its observance at the same time, the Jews arranged a series of bonfires as beacons beginning at Jerusalem and leading to the various distant points. This was a practice established soon after their exile, continuing until the fall of the city in 70 A. D.

Records reveal a Chinese calendar in use during the reign of Emperor Yao, 2357 B. C., which antedates Abraham by two centuries, Homer by 15, Buddha and Confucius by 18.

According to the Chinese calendar their New Year occurs at the second new moon after the day of the Winter Solstice, so New Year may fall as early as January 20 or as late as February 20.

In 1518, Cortes found in Mexico a stone calendar agreeing with those used by the ancient Egyptians on the other side of the world. Carved in stone, it weighed 24 tons and was believed to have been carved prior to the first or second century A. D.

In 1712, Sweden gave an extra day to their month of February giving it 30 days instead of 29, and it was not until 40 years later that they dropped the necessary 11 days to bring their calendar in accord with the Gregorian calendar.

The National Convention of the First Republic of France established the so-called Republican calendar, setting the first New Year's at September 22, 1792.

The oldest calendar in the Americas was discovered by Dr. von Walde-Waldegg of the Boston College Museum in Colombia. It is a carved stone, eight feet high, four feet wide, showing 80 solar cycles and 120 lunar cycles. Scientists estimate its age at approximately 2,100 years.

In the sixth century B. C., Nabu-Rimanu, a Babylonian, calculated the year as consisting of 365 days, 6 hours, 15 minutes, and 41 seconds, an error of only 26 minutes and 55 seconds.

A 30-day calendar, carved of red sandstone, through which 30 holes have been drilled, into which pegs could be fitted to record the day of the month, was located in an Amorite Fortress in Palestine, called Beth-Pelet. Records indicate it was created about 2,700 years ago.

The Coptic calendar still in use after 2,500 years has twelve 30-day months with the extra five days devoted to worship.

NEW CALENDAR AFTER 1944

By Harold M. Finley

From Los Angeles Times, *California, September 28, 1942*

IT took mankind untold centuries to grasp that the solar year is 365 days and a few hours long—and many weird calendars were devised in that time. The present Gregorian scheme of reckoning is, indeed, based on a knowledge of the true spread of the four seasons. It was a triumph of science for its day.

But those who worry about such things have long protested that it is an unnecessarily awkward system at best, and many have been the suggestions for straightening out its kinks. Two that have claimed attention in recent memory are a proposal for a 13-month year and the plan for a World Calendar with a 12-month year of equal 13-week quarters. The latter plan, with backing of a substantial character, is now being urged for adoption in our own and other countries.

The trouble with the 365-day year is that it will not divide neatly into months or quarters. Instead of dealing therewith by having months ranging from 28 to 31 days, and all scrambled at that, The World Calendar Association wants months in quarterly series of 31, 30 and 30 days, in which each day of the week would always fall on the same day of the month —a perpetual calendar starting annually on Sunday, January 1. There would be an extra day, of course; there would be no escaping leap year complications. There would even be a necessity for adjusting a discrepancy of a day too many in 4905—hardly a problem of immediate importance. But that has all been figured out. The system simply calls for a second Saturday in a row after the year-end on December 30—a world-wide holiday, it is suggested—and for a leap-year day every four years at the end of June. And there you are, everything nicely taken care of.

But why bring up anything like that in the midst of a war? Well, it's got to be done, the Association explains, when December 30 falls on a Saturday by both the existing and the envisioned calendars; the next time that happens is in 1944. That doesn't leave much time. The Association contends, moreover, that the plan would greatly simplify all governmental, business, industrial, agricultural, financial and labor affairs. The idea is obviously not one to be idly dismissed. Some of the best minds in this country have given it their endorsement.

F. O. B., DETROIT

By Ernest Camp, Jr.

Former Advertising Manager, The Lamson Company, Syracuse, N. Y.

DETROIT . . . the very name brings pictures of ordered confusion. Miles of conveyors carrying automobile parts, that meet, converge, only to separate again. From this mass of motion, in the time it takes to walk a city block, comes a car complete from bumper to windshield wiper.

American ingenuity in mass production has amazed the world. Today a tremendous volume of war material flows from these converted plants and contributes in a major way to the success of the United Nations' forces spotting the globe.

Efficiency in progressive assembly, coordination in manufacturing, daring in the development of something new, has made of America a nation that lives on wheels.

Because of this split-second timing, the orderliness, the stability, the sureness of The World Calendar appeals to the engineering-minded man.

Because it is only by applying a successful laboratory experiment to actual existing conditions that its practical worth can be determined, it tests the credulity of man to record the benefits which would come to the automobile business alone, with the adoption of The World Calendar.

The World Calendar evenly divides the 12 months into four equal quarters. The quarters each have 91 days, the first month of the quarter having 31 days and the succeeding two 30 days each. Every month has 26 weekdays plus Sundays. This orderly rearrangement of our now confusing months lends itself to established year-after-year planning and perpetual systems.

But now let us apply this universal, never changing calendar in a practical way to the construction and distribution of an automobile.

Business has long based its quotas on previous experiences; last year's production is the yardstick by which tomorrow's factory output is measured. By the same token labor's accomplishment is judged by the pace that has been set before.

With the calendar as we know it today, 90 days on the office calendar can well be but 62½ average working days in the shop. Computation of production based on month-figures of last year becomes useless when applied to months yet to come. Extra Sundays, extra Saturdays, wavering holidays play havoc with planning or estimations based on last year's calendar records.

The influence of The World Calendar begins to make itself felt as the factory building is being planned. A promise of completion that has been based on what has been done before can well bring penalties, overtime, increased pay-rolls and unanticipated delays that spell the difference between profit and loss for the builder; that bring delays and changed schedules for the company planning to occupy the plant.

Only as the estimators with their calendars before them on their planning boards laboriously count out the days, dropping Sundays, taking into account holidays that merge with week-ends, ever keeping an eye on other unanticipated red-letter days, will promises of completion and estimates of costs come true. Last year's figures, what was done on a similar job four months ago, can be no criterion.

When the plant is completed, when the machinery has been set, when the whistle blows and the time-clocks begin to clang, it is then The World Calendar really starts to pay its dividend. The pay-roll clerks follow figures as definite and as sure as those of an actuary.

Take the matter of holidays. When holidays move through the week, as they do under the present calendar, pay-roll clerks find constant confusion, recurring problems of wages, vacations and seasonal effort. Each has to be met with a different pattern every year. If a worker is paid by the month, if he works by the week, every pay-roll becomes a new problem. If a worker works by the hour, the problem of overtime, the question of holidays, the puzzle of shifts adds to the confusion. All this because of non-coordination in the general calendar plan.

With a perpetual calendar, a never-changing orderliness, the division burdened with tax matters knows to the minute the due dates it must now follow so meticulously if legal penalties are to be avoided.

In the purchasing department, parts, materials—gadgets—ordered on time are delivered on time; there have been no unthought of Fourth-of-July week-ends or unanticipated Washington-birthday shutdowns to upset carefully planned production schedules and promised deliveries.

As a consequence, inventory piles grow smaller, and money tied up in inventory, raw materials or half-finished parts is released for expansion, development or other money demands.

Car-loading divisions find freight cars sufficient and on time and those scheduling drive-aways find few delays. And all this because the new calendar brings order with perfect coordination among its various time units.

What of the calendar after the car leaves Detroit? Here the banker as well as the distributor gets a break. Interest on money borrowed for warehousing the cars is more easily figured, payment dates are definite and sure, contracts need never be checked in anticipation of "legal holidays."

Under the present system the first quarter has 90 or 91 days, the second 91 days and the third and fourth have 92 days each, yet banking custom provides a 90-day note to represent a quarter-year.

In The World Calendar year of equal quarters, each of 91 days, a quarterly note can justly be reckoned as an exact one-fourth of the annual amount. A 30-day note could still be reckoned as one-third of the quarter since in each of the 31-day months of each quarter the extra day is a fifth Sunday. Each month having exactly 26 weekdays plus Sundays, the present 10 per cent difference between February and other months disappears with other discrepancies of irregular months.

Factory deliveries to the distributor can be definitely anticipated and can be coordinated with factory production because of the certainty of weeks or months which guarantees similarity in accomplishment and in volume.

Sales records become orderly and quickly and truly comparable with those of the quarters past or future.

The World Calendar promises fewer delinquencies and greater order to finance companies, because deferred payments can be arranged to always fall due on Fridays or Saturdays. Finance company records and the records of industrial insurance agencies show conclusively that delinquencies reach their lowest point when payments come due at the end of the week; whereas "slow accounts" are more numerous when they fall due Tuesdays, Wednesdays and Thursdays.

The benefits of The World Calendar are applicable to all phases of commercial, industrial, educational, religious and social life. The railroad traffic manager whose schedules require annual revision, the sales manager who must check this week's business against the same week of last year, the advertising manager planning a budget or scheduling advertisements many months in advance, the restaurant owner, the teacher, and even the housewife, all can plan more constructively when not handicapped by a constantly fluctuating, hit-and-miss schedule of days and dates.

The World Calendar with its sensible rearrangement of days and dates, because of the dependability it promises, has been endorsed by countless associations, commercial groups and business agencies at national, state and local conventions.

Engineering-minded men, made doubly conscious of the needs of war, demand the utmost in production and distribution with split-second scheduling of manufactured parts, and see in this universal calendar a means of correcting past man-made errors. Errors must necessarily creep in where complete coordination and hour-by-hour deliveries are demanded on one side but where the scheduling of these millions of manufacturing processes depends on an erratic calendar that never stays put.

SETTING TIME ARIGHT

By Elisabeth Achelis, President of The World Calendar Association

An Address Delivered before The Women's City and County Club, Poughkeepsie, N. Y., January 15, 1943

WE have come here to discuss a most timely subject—Time itself. As Hamlet has said, "the time is out of joint," but today, most happily, we have the solution to set Time aright.

There are three matters which give us grave concern: the winning of the war as soon as possible; the adjustment of our affairs to meet increasing taxes; and the planning for a "just and durable" peace. How this solution, the new civil calendar—The World Calendar—can participate and be a valuable aid in meeting these problems is the subject of my talk.

To answer these satisfactorily, let us briefly review the defects of the present calendar.

The greatest objection is its shifting nature. Days and dates never agree; weeks roam crazily in and out of the months; months are so different in length that we must count either with the aid of the knuckles on our hand or recite a childish rhyme; quarter-years vacillate between 90 and 92 days; half-years likewise are unequal varying between 181 and 184 days; and the new year always begins on a different day in the week. Nothing stays put.

Our calendar is so planless, has so little order and no coordination that it confuses accounting systems, business efficiency, school and college schedules, and our many daily affairs which include clubs, family life, civic and defense duties. Comparability is almost impossible and the holidays break awkwardly into the week, haphazard fashion.

Months have either four or five Saturdays, important to the retailer; four or five Sundays, vital to the churches; four or five Thursdays, pivotal days to the hotel keepers; and four or five Mondays, often referred to as "blue Mondays." And holidays, too, are frequently more of a worry than a pleasure in this shifting calendar!

Christmas, just past, coming on a Friday caused headaches to many of us. Should the Saturday be kept open for business or closed? The result, some stores and businesses were closed on Saturday and others remained open, causing confusion and unfairness. The Saturday following New Year's Day, however, was in many instances a working day.

In talking about working days, let us say weekdays, it is important to note that these vary in the months from 24 to 27, exclusive of Sundays.

The present calendar is really the most erratic of the many systems we use in our lives. And the reason for this? It is 2,000 years old, hailing from the time of Julius Caesar. Incredible, isn't it, that civilization should have put up with it for so many centuries—all told, 19! We are using today a calendar of pagan origin with its strangely irregular lengths of months.

With these defects clarified we can now more clearly understand why our ancient calendar is so little fitting to our age and so inadequate in our present crucial situation.

Today, when every second and minute, every hour and day, are so vital, have we the right, the justification, to cling so blindly to the Gregorian calendar on the premise that other things are more important? Certainly there *is* nothing more important than the winning of the war and we believe that a change to a better calendar as soon as possible will materially aid us in this.

For the winning of the war three essentials are imperative: well-directed plans, order, and coordination. We need these in Washington, in war production, at the front and at home, in civilian defense, and with our citizenry.

The military has given us, civilians, a new word, "logistics," which Lieutenant General Somervell defines as "the art of getting the right number of the right men to the right place with the right equipment at the right time. . . . Good logistics alone cannot win a war. Bad logistics alone can lose."* Stated in another manner, do everything with coordination, wasting no time, labor, effort, money and material.

In discussing war production, let us consider the first quarter of 90 days in the calendar-year and compare it with the second quarter of 91 days, and we shall see how illogistical is the calendar. We find that January has 8½ non-productive or overtime wage-days, consisting of five half-day Saturdays, five Sundays and at least one holiday. February has eight such days and March has six on which overtime wages are paid. All told, there are 22½ overtime wage-days if they are to be producing days, so needed for war production.

Let us also suppose that 90-day delivery dates have been promised on some vital material or part. The manufacturer finds himself with 90 calendar days, but actually with only 67½ ordinary working days in which to make the 90-day delivery.

In considering the second quarter, April, May and June, 91 days, we find this quarter contains 70½ ordinary working days, with the remainder 20½ non-productive or overtime wage-days, so that there exists a difference of two days between these two quarters.

*Proceedings of the Academy of Political Science, January, 1943, Page 161.

Unless the concern promising delivery has carefully checked the regular working days in each quarter and the added holidays and overtime working days, there is a lapse of two days. It is a labor burden that might spell the difference between profit or loss, between specified or delayed delivery, all the result of the present vacillating calendar.

At a time when engines, parts, instruments, guns, tractors and wings, each produced in separate plants ofttimes hundreds of miles from the point of assembly, an interval of two or three days might well play havoc with production schedules of our carefully coordinated, high-speed assembly plants. Our present time-system is not an aid to our best war efforts.

A most valuable factor in our lives today is the radio. How many realize that we could not enjoy our amazing radio programs were it not for Standard Time, established in 1883? Radio reception is continuous 24 hours and encircles our globe. Only because our clock time is standard and ordered is this remarkable feat possible. Why, then, is not our calendar as efficient as our clock?

> Mark Hawley, one of our well-known radio commentators, has given us an interesting example. He tells us that 15 minutes on a national hook-up costs about $2,700 outside of talents and production costs. Our present system of reckoning time, regarding days, weeks and months, costs New York City approximately $5,322,886.25 a year. Thus our Gregorian calendar costs the taxpayer $607 an hour. Then, he continues, a radio speaker, for example, often must know on what weekday a particular date a month hence will fall.
>
> He has no immediate calendar at hand and every second counts. So he rapidly figures 30 days has September, etc., and the months that have 31 days, calculates backward or forward as the case may be, until he has found the day of that particular date. About 30 seconds of air-time has been frittered away because of the faulty calendar. To an average person it would take one minute, counting for possible mistakes and repeats.
>
> This loss repeated every day by half of the population in New York City would consume 58,333 hours daily, equivalent to 7,291 working days. On the basis of 25 cents an hour wage minimum, he continues, this would be $14,583.25. And this amount represents only one day's counting in our crazy calendar. The yearly bills, according to Mr. Hawley, would be well over five million dollars. And all this useless expense, that brings money and pleasure to no one, is the result of days and dates incessantly varying in the calendar!

With the additional taxes levied upon practically every one of us, it becomes increasingly urgent to watch every outgoing dollar. Our Federal taxes must be paid four times every year, on the 15th of March, June, September and December. This year these dates come on Monday, Tuesday, Wednesday and again on a Wednesday. A year ago they fell on Sunday, causing the tax to be paid on Monday, then a Monday, Tuesday and another Tuesday; and next year on Wednesday, Thursday, Friday and again a Friday. Incidentally, similar shifting of days is due when we pay insurance premiums. All this naturally adds to our financial burden and mental strain. What a detriment our calendar is!

Coming to the last matter which concerns us, how can we plan for a

just and durable peace with a calendar that is so confused, disjointed and inefficient? It is like pouring new wine into old bottles. To paraphrase, how can we effectively build a new world with an ancient outworn calendar? When we consider that our calendar is a fundamental requirement for everything we do, it does seem incongruous to speak of just, when the calendar is unjust, and to speak of durable, when the calendar is variable.

The new World Calendar of 12 months and equal quarters is ready and available, eminently capable of aiding in war production, in tax payment and in the planning of peace. Out of situations that are confused, the new time-plan will make the difficult easy, and the complicated simple. In its mathematical and carefully laid out arrangement it supplies that which the present calendar lacks.

The World Calendar is well directed, ordered and stable. Each time-period coordinates with all the others at the end of every quarter-year, four times a year.

Let us see how simple this is. Taking the first quarter as a pattern, we observe that it begins on a Sunday, ends on a Saturday and contains three months. The first month has 31 days, the other two 30 days each, making a rhythm of 31, 30, 30. Each month has 26 weekdays, exclusive of Sundays, and this gives the quarter-year exactly 91 days, 13 weeks or three months. Every quarter parallels a season.

For the first time, there is perfect agreement within the calendar, as well as a retaining of the scientific accuracy. And, in addition, it has order with variety. And who doesn't like variety?

This 364-day year, however, is short of the 365th day and in leap years the 366th day. These days are necessary to keep the calendar true to the seasonal year.

The 365th day becomes an extra Saturday, the Year-End Day, that follows every December 30th, is known as a World Holiday and dated December W. And the 366th day is another extra Saturday, the Leap-Year Day, that follows June 30 in leap years, is another World Holiday, and dated June W. This is the plan of The World Calendar.

The one commodity that we always have with us is Time. Instead of scattering, wasting and spending it wantonly as is done in the Gregorian calendar, The World Calendar conserves it.

With The World Calendar in operation war production and business activities need not be concerned about the differences in the quarters and the discrepancies of one, two or more days, as these do not exist. With every quarter equal and ordered, and with every time-period coordinating perfectly, the calendar is not only scientifically accurate, it is also logistical in the military sense, an invaluable aid to the prosecution of the war.

For the paying of our taxes, to know that the 15th of March, June, September and December will always fall on Friday—the last full business

day—is a real help, not only to the citizens but to the government as well. And why? Because the new calendar is stable, days and dates always agree. We will know that March 1 is always a Friday; December 25 a Monday; Labor Day, Monday, September 4.

Let me refer more specifically to Labor Day. In 1941 it came on Monday, September 1, and in 1942 on Monday, September 7. There was thus a difference of one entire week in the opening of schools, a difference that caused real disturbance in the school schedules for faculty, teacher and pupil. And our Thanksgiving Thursday will always be November 23. By act of Congress, December 1941, Thanksgiving was established on the fourth Thursday in each November, ending the previous shifting last Thursday, between the fourth and the fifth. This step of stabilizing Thanksgiving should logically lead to the stabilization of the calendar.

With the ordered, coordinated and stable World Calendar in use, it is now readily seen that here is a vital instrument that will materially aid toward a just and durable peace. When we say peace, I like to associate it with the Chinese word for peace. Theirs is a composite word, *Ho Ping*, meaning harmony—equity. Certainly these qualities are inherent in The World Calendar which in plan is harmonious and in arrangement equitable.

World unity—a federation of nations—is our great hope, in which every nation will have its rightful and just part to play in our common world. Toward this end the universally observed World Holidays are symbolic of the "healing leaves" of the tree of life which will draw all nations and peoples closer together.

It has been said that "Time which 'takes survey of all the world' should itself be one and the same for all the world." It thus becomes our bounden duty and obligation, doesn't it, for every one of us to see that The World Calendar is adopted at the earliest possible time, which is January 1, 1945?

But you will say, why January 1, 1945?

Experience has taught us through many centuries that to make a change effective it should be done with the least disturbance. When a day and date of the old calendar coincide with a day and date of the new, it is natural, nay, imperative, that that is the appropriate moment to make the change. This occurs on Saturday, December 30, 1944, in both the outgoing and the incoming calendars. The following day, Sunday, December 31 in the old becomes the extra Saturday, Year-End Day in the new, the *first* World Holiday, December W, 1944. And The World Calendar will begin a new era of time with Sunday, January 1, 1945.

Toward the adoption of The World Calendar, let everyone in their homes, their clubs, among their business associates, in their civic activities, speak and work for this calendar. We have no time to waste; it brooks no delay. Write to the President, the Secretary of State, and other govern-

ment officials stating the need for this World Calendar, urging action.

Among the many organizations which have approved it, I can mention but a few: the General Federation of Women's Clubs, and the National Federation of Business and Professional Women'.. Clubs; the National Education Association and the World Federation of Education Associations; the American Association for the Advancement of Science, the American Academy of Arts and Sciences, and the International Astronomical Union, Commission 32, 1922; the New York State Chamber of Commerce and that of St. Louis; and three notable Chambers of Commerce in the British Empire; and the Labor Conference of American States in Chile, 1936.

And among nations, 14 have given it their official approval—Afghanistan, Brazil, Chile, China, Esthonia, Greece, Hungary, Mexico, Norway, Panama, Peru, Spain, Turkey and Uruguay. This list is most interesting as it cuts through national, racial, color, and religious barriers, a true indication that time, the civil calendar, belongs to and affects us all alike.

A wonderful opportunity lies before the United States, to act and take the leadership—joining the 14 countries which have spoken and invited the other Americas to act. There would be a solid America behind this movement and the Western Hemisphere would act on the modern civil calendar as did the Eastern Hemisphere with the older calendars.

And now, before I close, a brief word about Easter with its fixed date. We realize that this is a religious subject. Any decision regarding a fixed Easter, therefore, rests with religious authorities. It would be highly desirable, although not imperative, were the churches to act on a fixed Easter about the same time that governments act on the civil World Calendar. To justify this let me give the following two quotations:

> "It is worthy of recalling that during the pontificate of Pope Pius X the International Congress of Chambers of Commerce received, in 1912, the following statement: 'The Holy See declared that it made no objection but invited the civil powers to enter into an accord on the reform of the civil calendar, after which it would willingly grant its collaboration in so far as the matter affected religious feasts'."* . . .

In an interview between His Eminence, Alfred Cardinal Baudrillart and Hubert Forestier, published in the *Paris-Soir,* April 1936, on Easter stabilization:

> "Pius XI was inclined to admit the proposition. . . . The Pope is of the opinion that the thing can be done and that there would be great advantages. . . ."**

And the Protestant churches have even gone further in their endorsements for a fixed Easter in The World Calendar.

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* "League of Nations and Calendar Reform," by Essy Key-Rasmussen. *Journal of Calendar Reform,* Vol. 12, Page 81.

** *Journal of Calendar Reform,* Vol. 12, Page 43.

THE AGE-OLD FESTIVAL

By Lois G. Hutchinson

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THE day of the resurrection of Jesus Christ has been observed as the most important and joyful of all Christian festivals. Christians of old celebrated it as "the happiest of days," "the Sunday of Joy," "the festival of festivals." Pope Leo I named it "the day alone great," and through the centuries Christian believers have observed the Resurrection as the central fact of the Christian religion. The Crucifixion and Resurrection occur just preceding the Passover. Much of Christianity has Hebrew backgrounds; so Easter has its roots in the Passover.

The Hebrew people celebrated the coming of spring and the awakening of the spring sun. The Jewish Passover is a nature festival as well as a commemoration of the act of the Angel of Destruction who "passed over the houses of Israel in Egypt when he smote the Egyptians." The feast is a time of great importance as celebrating the beginning of Jewish freedom and the subsequent beginning of the national life. The egg shown at the first Passover meal is a reminder of the sacrifice of the Jewish nation "when the Temple stood," and is also a symbol of reawakening life.

After the time of Jesus, the early Christians continued to take part in the Passover celebration, but they no longer observed the historic rites connected with its observance. But all of those who became followers of "The Way" were not originally Jews. As Paul went abroad preaching, Gentiles and pagans embraced Christianity. These people brought with them into the new religion memories of pagan spring festivals. The customs of these festivals were gradually taken over and reinterpreted to become part of the Christian festival of spring.

Students of mythology have found that the name Easter is derived from the old heathen feast of *Eostre,* so called because the spring sun has its birth in the east. Only countries of Anglo-Saxon origin use this word or its derivatives. The English name is *Easter;* the German, *Oster.* The French name *Pâques,* the Italian, *Pasqua,* the Spanish, *Pascua,* are all derived from the Hebrew name of the Passover—*Pasach,* with which Easter is closely akin. In Apostolic times, Christians came to celebrate the Resurrection of the sacrificed Lamb of God at Easter and it was natural to call

it by the same name as the Passover Feast which they had formerly observed.

In Teutonic times, Christians put into their celebrations of the awakening of the Son of Righteousness much of their joy at the awakening of the spring sun after the long darkness of their winter. These two influences probably were the causes of the choice of a name for the Christian festival being made quite late in the history of the Church. As late as in the reign of Henry VI of England the day is called Ostur Day in some places, in others Pasch Day, others Goddes Sunday. Though late in being named, Easter is the oldest of Christian festivals, its observance beginning in the Apostolic Age, although nothing concerning the observance is to be found in the New Testament. Some type of its observance must have begun shortly after the time the New Testament was written, as there is a record from perhaps as early as the second century of the difficulty in settling the date.

The Council of Nicea, summoned by Constantine in 325, settled upon the same Sunday throughout the world. Following the edict of the Council, a universal date was set by the Pope, but owing to differences of longitude and calculation of time, Easter Day could not fall on the same date in all the countries of the world. A regulation of Constantine then set Easter as the first day of the New Year.

This day was observed in France until 1564, other countries having discontinued the custom before this date. When Gregory XIII corrected the calendar in 1582 a definite method of determining the date was agreed upon and Clavius prepared tables for the Pope. Western churches follow this method, our Easter coming on the first Sunday after the full moon, following the vernal equinox. However, some of the Eastern Churches do not follow the Gregorian calendar. The Christian world is not entirely satisfied with this method of fixing the date of Easter, various methods of setting one date having been attempted, but as yet no international action has been taken and the Gregorian method continues in use.

Winters in northern lands, such as Russian and Sweden, were long and cold and dark. The pagan custom of Easter fires, originating in Ireland, was early adopted by the northern countries as well as most of the other European countries. These fires, indicating the victory of spring over winter, were set on mountaintops and hillsides. Every fire must be a new one, kindled from friction, not from already burning fires, tapers, or torches.

Six hundred years before Christ, Greek parents told their children the legend of Persephone to explain the return of light and life to the earth after the winter darkness. Persephone, daughter of Demeter, goddess of the fruitful earth, and Zeus, father of all the gods, was loved by all and especially by Aidoneus, king of the underworld, who desired her for his

bride. One day while playing with the daughters of the ocean, Persephone saw in a distant field hundreds of blooms of a flower more beautiful than any the earth had ever before seen. It was the iris, and from its heart rose an exquisite perfume. As Persephone ran toward the field with arms outstretched, the earth suddenly opened and out dashed Aidoneus in his golden chariot. Seizing the girl in his arms, Aidoneus bore her off to his palace in the underworld. As she saw the lights of earth disappearing, Persephone uttered a piercing shriek that went through the heart of her mother.

No one saw the chariot and heard the cry except Hercate from her cave and the all-seeing Sun. Grief-stricken, Demeter wandered through the earth for nine days seeking her daughter. On the tenth day she met Hercate who told her what she had seen. Together they went to the Sun and he told them what had happened. Demeter was filled with anger at Zeus for allowing such a thing, and refused to take part in the assembly of gods and men but went to a temple built to appease her where, with her face turned to the wall, she mourned for her daughter. Here she sent a famine upon the whole earth and there was lack of food for men. Finally Zeus sent messengers to persuade her to lift the curse but she would not until she should once more see her daughter. Zeus then commanded Aidoneus to release Persephone.

Aidoneus loved his bride, but dared not disobey the command of Zeus. Aidoneus knew that if Persephone ate food in the underworld she might not return to earth, so desiring to keep her, he persuaded her to eat a morsel of the pomegranate. Persephone was restored to her mother who, glad for her return, allowed the earth to be fruitful again, but because Persephone had eaten the morsel of pomegranate in the underworld, Zeus decreed that she must spend one-third of each year with her husband there. So winter comes, but new life and beauty come to the earth with the return of Persephone each spring.

Ancient peoples celebrated the spring festival with exuberance, and there are many stories and traditions connected with their jubilant welcome to the spring. In northern lands the long winters are cold and dismal and their people wait eagerly for spring. Fathers of families made a long, hard climb to a nearby mountaintop, each one carrying a lighted torch and a bundle of fagots. From the light that should be cast by the burning fagots, Baldur, the sun god, found his way back from the long winter night to bring the light of spring again to the valley. When watchers in the valley saw lights appear over the mountaintop they rejoiced for they knew spring would return to them.

Numerous customs have become a real part of the celebration of the Easter festival. There is a story of a German noble lady who in olden times was compelled to flee from home during war time, taking her two

children with her. Wishing to bring Easter joy to her own children as well as to those of the village in which she made a new home, she hid gaily colored eggs in nests in the wood. All the children were overjoyed when they found them, but could not believe that hens had laid such beautiful eggs.

As one little girl found a nest of colored eggs, a hare jumped out of a nearby juniper bush, and the little girl declared that the hare had laid the beautiful colored eggs. All the children laughed and clapped their hands and repeated over and over so many times that the dear little hare had laid the bright eggs that they came to really believe it. When the war ended and the duke returned to take his wife and children back to their former home, the duchess left a sum of money to be used every year to give the village children a feast of eggs.

The custom of feasts of eggs at Easter spread over the whole country, but only in Germany are Easter eggs laid by the hare. Of the numerous customs which have become a part of the celebration of the Easter festival, some have Teutonic origin and come directly from the heathen festival of spring gladness. Easter-eggs, Easter-games, Easter-fires, Easter laughter—all have heathen origin. Eggs were considered a symbol of germinating life by Egyptians, Persians, Greeks, and Romans. They were first colored in Persia, where only those colored red to represent the blood shed for redemption had any significance. Eggs were an important food to ancient peoples. In some countries they were the first food to be eaten after Lent.

In Russia the celebration of Easter began with a midnight service on Easter eve, and to this service samples of dishes to be served on Easter were brought to share in the blessing. Among these foods curds and colored eggs were prominent. Egg rolling on Easter probably originated in Germany and has spread to many other countries. Apples and little, round cakes were also rolled. In the north of England eggs were used in playing handball as well as rolled on the ground. And we have our annual egg rolling in Washington, originating from these practices.

The Church of Rome has considered eggs emblematical of the Resurrection. The hare was first made a part of Easter in Egypt, where Easter came at the beginning of the new year and the hare was a symbol of fertility. The practice of Easter fires has now been largely discontinued in homes but it is observed in large Catholic churches of Europe.

LEAP-YEAR LOGIC

By F. Hope-Jones, M.I.E.E., Fr.A.S.

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LEAP year is a most inappropriate title for a year which has a day added to it. It seems to imply the opposite. Can we not find a better word for a year which has 366 days in it instead of 365? For the purpose of this essay I propose to call it an *"extra-day"* year.

The length of the astronomical year is 365 days, 5 hours, 48 minutes and 46 seconds, that being the time taken by the earth to make one complete revolution round the sun. If we had made that our time-standard, making our hours, minutes and seconds a little longer, then every year would contain 365 days exactly, but our standard of time is based upon the rotation of the earth since it gives us day and night and has the most uniform motion of anything we know.

The periods of motion of the heavenly bodies are never divisible, one into another, without leaving a remainder, they are what is called *incommensurable,* so this untidy overflow of hours, minutes and seconds must be accepted and corrected by some such device as putting in an extra-day year at suitable intervals.

If the residue were exactly 6 hours, then one extra-day year in every four would adjust it, giving us 25 extra days in every 100 years. But 6 hours is 11 minutes 14 seconds too much, so when we put in the extra day of 24 hours every fourth year, we put in an excess of 44 minutes 56 seconds for every group of 4 years, amounting to no less than 18 hours, 43 minutes and 20 seconds in a century.

Our present method of dealing with this accumulated error is to drop out an extra-day year once every 100th year. But this overdoes it, it drops out 6 hours, 1 minute and 36 seconds too much (44 mins. 20 secs. $\times$ 24 = 17 hrs. 58 mins. 24 secs.) 24 hours — 17 hours 58 minutes 24 seconds = 6 hours and 1 minute and 36 seconds. This obviously calls upon us to omit the omission every 400th year, but this replacement of the extra day every 4th century overdoes it and we swing in the opposite direction.

Thus in our attempt to divide the indivisible, to make the earth's rotation on its axis fit into its revolution round the sun, we swing like a

pendulum, first too far to the plus side (365¼ days) then too far to the minus side (by omitting the extra-day year each century) then too far to the plus side again (by restoring the extra-day year every 400 years) but we are still left with an accumulating error.

This recital is becoming monotonous so I will not discuss how the final surplus should be dealt with; you will be getting tired of following the Gregorian rule through its performance of diminishing swings.

Is there no short cut, no simpler way of keeping our calendar in step with the sun and the seasons? Can we not improve upon the Gregorian century rule so that it may give us a more precise result in a more simple manner?

The answer is in the affirmative and the object of this article is to demonstrate the method and prove it.

The problem may be stated thus:

It is required to find what is the proportion of the years with 366 days to years with 365 days that will precisely absorb the annual excess of 5 hours, 48 minutes, 46 seconds and to insert them at intervals as nearly uniform as possible.

The proportion is 31 to 128, and one year of 366 days should be inserted every fourth year, excepting only the 128th.

Thus we begin as before by making every fourth year an *"extra-day"* year. As a foundation, this cannot be improved upon and it has a respectable ancestry. Julius Caesar introduced it in the Julian calendar dating from 45 B.C., assisted by Sosigenes, a famous astronomer of Alexandria. He estimated the length of the year at 365¼ days and put in a year of 366 days every fourth year. This idea had been proposed by Eratosthenes at least 150 years before. Pope Gregory XIII improved upon it in 1582 and stated it thus: every year divisible by 4, but not divisible by 100, is a leap year, except those divisible by 400 and those *are* leap years.

Let us substitute the figure 128 for the 100—just that and nothing more and, by so doing, finish the job completely, cleaning it up without any further swinging to and fro between over and under correction. There will be nothing left to correct.

That omission of 3 out of 4 of the century years was good enough for the dark ages, but must have caused, in the aggregate, a vast amount of trouble. It belonged to an age of astrology rather than astronomy and it is not to the credit of civilization that we have submitted to it for so long.

Like the calendar itself, it can be permanently corrected by a very simple alteration, and now that calendar reform has entered the sphere of practical politics and will probably be adopted in 1945, I look forward to the old unsatisfactory leap-year rule being swept away by the 31-128 solution.

It is proved by the following simple sum in arithmetic:

There are 32 groups of 4 years in 128 therefore there will be 31 years of 366 days and 97 ordinary years of 365 days, so the total number of days in the period will be $(97 \times 365) + (31 \times 366)$

365		366		
97		31		
2555		366		
3285		1098		
35405	+	11346	=	46,751

The length of the year given in the *Nautical Almanac* for 1942 is 365.24219879 days. We will be content with 4 places of decimals and will multiply it by 128

365.2422	
128	
29219376	
43829064	
46,751.0016	

The difference is less than 1 second and this small residual error will tend to correct itself in centuries to come since the length of the day is increasing.

Let no one say that there is any merit in putting in or taking out leap years at the end or beginning of a century. The one omission of every 128th year could be published in advance indefinitely.

OBITUARY NOTES

JOSEPH F. O'CONNELL, Attorney, Ex-Congressman and Manager of the George Robert White Fund, Vice President of the American Irish Historical Society and for many years a prominent figure in Boston, died December 10, at the age of seventy. As Vice Chairman of the National Commission on Uniform State Laws, as a leader and crusader for a betterment of political and social plans, Mr. O'Connell contributed much to the progress of The World Calendar Association. He was appointed manager of the $6,000,000 George Robert White Fund and upon termination of his term of office was reappointed. He was serving in that capacity when he died suddenly while with his wife he was visiting friends in the Hotel Lenox in Boston. Mr. O'Connell was the father of eleven children, six of whom were in the armed services at the time of his death. Since then a seventh son has become a member of the Army Signal Corps. Mayor Tobin of Boston, together with many other civic leaders and humanitarian leaders, paid tribute to this Boston citizen.

BUILDING MANAGEMENT AND THE WORLD CALENDAR

By Richard B. Gilliam, President, Gilliam & McVay, Inc. Real Estate Management, New York City

WHILE statistics are meager, I feel it safe to assert that the life expectancy of people engaged in the business of building management is far less than that of the men who build the steel and brick structures that they manage. Those in this business who do not die young usually go stark, raving mad, or seek release by changing to less arduous occupation, such as steer wrestling or motor-cycle racing.

There was a time, I suppose, when individuals and corporations owning buildings took care of the renting and maintenance themselves. But the mortality rate mounted at such an alarming rate they found it necessary to shift the task to firms specializing in this class of work.

This, which at first was an experiment on their part, grew into practice and now it is general. No one who is not bilingual and ambidextrous, and no one who cannot listen to two telephones at the same time—while carrying on an animated conversation with a disgruntled tenant at one and the same time—can qualify for this sort of unappreciated work. They must be diplomat and mechanic and salesman, carpenter and engineer, and skilled in the manly art of self-defense to do a thorough-going job for a man or corporation who owns the buildings they manage.

Mrs. Jones, and any reference to names and places is purely coincidental, is angry because the paint on the bedroom walls does not seem to match the flower decalcomania on her French dresser. Mrs. Smith promises to move forthwith unless something is done about the people upstairs. The people upstairs, as a sort of counter-irritant, mince no words in telling you that there will be no more rent from them unless you make Mrs. Smith get rid of that "dreadful" dog.

An engineer in one of the buildings calls to say he needs 6 feet of 2-inch pipe and would you please arrange a priority application. The painting contractor is on the phone to say that three more men have quit to work in a defense plant and Mrs. Thompson's apartment can't possibly be ready tomorrow.

A man from the City Building Department leans casually on your desk

and coldly, but firmly, insists that unless fire escapes are erected on the building on Teller Street it will have to be vacated. And steel for fire escapes is harder to get than the men to put them up.

Mixed in the morning mail is the fourth letter from those people in No. 16 giving a new and better reason why last month's rent check has not been paid. There are pay-rolls to figure, rents to check, bills to pay, men to hire, and apartments and storerooms to be rented. And so it goes all day, as long as the office is open.

A building management firm must have the versatility of a country doctor, the diplomacy of a British servant, and the patience of Job. We grasp at new ideas, at better ways of doing what we have to do, and for methods whereby we can accomplish more in less time, with the alacrity of the man on the flying trapeze.

That is why I, for one, have been tremendously impressed by the simplicity, the definiteness, and the regularity of The World Calendar, with its 12 months and equal quarters. Much of the mental and nervous strain is the result of the crazy calendar we use. One of the bug-bears of our business, and actually one of its inequities, is the fact that tenants pay as much rent in February as they do in March. The servicemen, superintendent, engineer, and maids are usually paid by the week, on a monthly basis, so here again inequity and unfairness creep in.

In spite of the multitudinous detail that surrounds the operation of property and in spite of the irritating, time-taking phases that are always a part of details having to do with people themselves, our greatest task is really that of figures. There are commissions that must be paid to salesmen and renting agents, there are salaries which must be paid to superintendents and other employees. There are deductions which must be made, taxes to figure, insurance to pay, all taking a tremendous amount of paper work, and mental effort that is sabotaging our valuable time.

I can see even without making a meticulous study where these operations under a calendar of 12 months with equal quarters would ease this burden to a marked degree. With holidays moving through the week as they do under the present calendar, there is a constant recurring problem of wages, vacations, and seasonal work which has to be taken into account. Vacation schedules are always a headache because tenants demand the same service during summer vacation periods that they do during the more settled fall and winter seasons.

Contracting firms that repaint, repair or rehabilitate apartments or storerooms are never sure of completion dates without the overtime labor charges unless they sit down before their calendar and anticipate holidays, long week-ends, and Saturday half-days. I have seen many painting contractors finish a job at a loss, because in making their bid they failed to take into account a period abounding in unanticipated holidays.

Taxes are other specters that haunt building management concerns. Property taxes are usually paid semi-annually. So again unfairness creeps in when the first half of the year contains 181 days and the last two quarters contain 184 days. This is especially true in the case where the title of a property changes in mid-year. It takes a sharp-eyed accountant to remember the quarterly payments on insurance or the quarterly, semi-annual, or annual corporate income accountings, with the day and date changing constantly year after year.

In business properties where rents are based on basic or increased volume, the hazards of a changing, planless calendar become obvious. A short month broken up by two holidays cuts sales and necessitates tremendous reductions in profit, and naturally rent participation.

With The World Calendar all of these events and dates become changeless and perpetual. A plan once defined and placed in motion remains the same quarter after quarter, year after year. Only people in the real estate management business are able to appreciate the heavy load that such a regular arrangement of dates would take from their shoulders.

In cities like New York where "official" moving days are not staggered, May 1 and October 1 always present a problem for building management concerns, as well as trucking companies. This problem becomes doubly burdensome when these dates fall on or near week-ends. The World Calendar with its fixed days and dates would obviate this dilemma.

Of course, there would still be the constantly complaining Mrs. Smith, the Jones' dog, and the people in No. 16 would be late with their rent. It will still be impossible to find the perfect apartment house staff. But, with the introduction of The World Calendar that does stay put and is ordered and regular, the confusion and irritation now occasioned by a calendar that won't stay put would be replaced by a much needed and deeply satisfying relief to the harassed group of jittery real estate men who classify themselves under the somewhat confusing title of "Property Management Groups."

ADDITIONAL OBITUARY NOTES

Since the publication of the last *Journal of Calendar Reform*, we have learned of the death of three citizens of foreign countries, each a long friend and supporter of The World Calendar. These include *Dr. Robert Schöpfer*, a member of the Radical Democratic Party in Council of States, who died in Bern, Switzerland; *Professor Carlos Porter*, who died in his home in Santiago, Chile; and *Dr. Luis Roca de Togores y Perez del Pulgar*, who died in Madrid, Spain.

BROAD SECTION OF AMERICA SEES EARLY ADOPTION IMPERATIVE

MARK TWAIN once said that "everybody talked about the weather, but no one seemed to do much about it."

Since the United States took on the task of being the Arsenal of Democracy, with the later acceptance of full membership in the United Nations' war effort, many of America's leaders have had but little time to think about The World Calendar with its 12 months and equal quarters.

However, now that the vast job of organizing industrial America and enlisting adult America in this relentless fight for our lives has well started, these thinking people are again beginning to "do something" about early adoption of The World Calendar.

They see a concrete parallel between the orderliness and efficiency of The World Calendar with the planning and efficiency in the conduct of the war effort.

These people and the organizations they head are taking specific action and recommending the adoption of The World Calendar so that greater harmony and more perfect synchronization of the involved schedules in our production plants may be possible. They see the demand for greater planning, the need for split-second coordination, and the interlocking efforts of our international actions hastened and made more purposeful by the streamlining of time.

Indicative of the interest of retail merchants is the action recently taken at the National Convention of the National Retail Dry Goods Association. This group, composing the vast majority of the leading mercantile institutions in America, voted at the Director's Meeting in January to appoint a committee to study The World Calendar in its relation to retailing.

This logical rearrangement of dates has already received the personal endorsement of such men as: Arthur C. Kaufmann, President, Gimbel Brothers, Philadelphia; A. C. Thompson, Assistant to Director, Associated Merchandising Corporation, New York; H. M. Uline, Vice President, Adam, Meldrum, and Anderson Company, Buffalo; Charles B. Dulcan, Sr., Vice President and General Manager, Hecht Company, Washington, D. C.; F. McL. Radford, President, Bon Marché, Seattle; F. R. Atcheson, Comptroller, Marshall Field and Company, Chicago; Jay Iglauer,

Vice President, Halle Brothers Company, Cleveland.

The irregularity of the present calendar, together with the fact that it defies comparisons with previous periods, together with the illogical arrangement of holidays and vacation dates, is playing havoc with retail planning, buying, and selling.

Not only has this large national organization appointed a committee to investigate the calendar, but the Fraternal Congress of New York, together with the Fraternal Congress of Maryland and the District of Columbia, a group of Fraternal Insurance Executives representing more than four million policyholders, unanimously adopted a resolution to modernize the present calendar, urging the adoption of The World Calendar of 12 months and equal periods. The combined membership of the societies residing in these two states and in the District of Columbia holding membership in the two congresses is 418,681, and the aggregate membership is 4,166,681.

Similar action was taken by the Lions Club of Ephraim, Utah, and the Rotary Club of Devils Lake, North Dakota, also passing resolutions asking that this change be made and that Congress take action to this end.

At meetings of the Kiwanis Club of Elizabeth, New Jersey, the Lions Club of Artesia, New Mexico, and the Weyauwega, Wisconsin, Lions Club, the President was instructed to appoint a committee to investigate The World Calendar advantages as they apply to business in general as represented by a broad membership of these service organizations.

The resolution of the New York Fraternal Congress and the Congress of Maryland and the District of Columbia is given below and contains the basic details of resolutions passed by the other organizations mentioned above.

Observers see in the action taken by these widely divergent organizations and associations a realization that action for a change in our present calendar should be hastened, not only as an aid to greater war effort and greater efficiency, but also as a means of cementing international relations when the war is ended.

The acceptance and adoption of The World Calendar by the United States before January 1, 1945, even though peace negotiations follow later will do much to give to the new world, not only a standard method of calendar accounting, but a common denominator of planning that will work for greater international relationship and social harmony as well as greater trade coordination.

The resolution follows:

WHEREAS, the National Fraternal Congress of America representing eight millions of fraternalists through its Presidents' Section has heartily endorsed the plans of the World Calendar Association for needed reform of the calendar into a twelve month year composed of four equal quarters and a uniform and balanced

schedule which would greatly benefit the fraternal insurance societies and the entire insurance system, and

WHEREAS, the present unbalanced, irregular and unsettled calendar would thus be replaced by a balanced, regular and perpetual calendar which has been favored by 14 nations, and

WHEREAS, the proper time for world adoption of such an improved and revised calendar would start with the year 1945; therefore be it

RESOLVED that the Fraternal Congress of this State urges the Congress of the United States of America and the President of the United States to further the adoption of this calendar reform which would be helpful to all citizens, including the eight million members of our societies.

Further support was given The World Calendar by a resolution unanimously adopted by the Women's City and County Club of Poughkeepsie, of which Miss Rhoda Hinkley is President. This representative group of women leaders passed a resolution similar in general tone to that approved by the Fraternal Congresses on February 19 and 20, 1943. The endorsement followed closely a speech made before this group of women by Miss Elisabeth Achelis, President of The World Calendar Association, which is given in full in another section of the *Journal*.

LATEST LENT OF CENTURY

From* New York World-Telegram, *March 8, 1943

The Christian world will begin observing on Wednesday the latest Lenten period of the twentieth century because of an astronomical condition occurring only once in a hundred years.

Maude Bennot, Director of the Adler Planetarium and Astronomical Museum, Chicago, said that March 10 and April 25 are the latest possible dates in the calendar on which Ash Wednesday and Easter, respectively, may fall. The last time Easter was this late was in 1886; the next time will be in 2038.

"The peculiar rules for selecting Easter and Ash Wednesday were made in 325 A. D. at the Council of Christian Churches at Nicea in Asia Minor," Miss Bennot said. According to that decision Easter falls on the first Sunday after the 14th day of the moon falling on or after the vernal equinox (first day of spring), which this year is March 21.

The reason for basing the selection of Easter on the dates of the moon was that in the early centuries of the Christian era, the pilgrims needed moonlight to travel safely on their way to the great yearly Easter festivals.

Explaining the mathematics of Easter, Miss Bennot said the moon which comes after the vernal equinox this year begins on April 4. Fourteen days after that date is April 18, which happens to fall on a Sunday, and the next Sunday after that date is April 25, or Easter.

Once the Easter date is determined, Ash Wednesday is found by counting back 40 days—the length of Lent—not counting Sundays, thus bringing this year's date to March 10, Miss Bennot said.

TIME AND CALENDARS

By Charles K. Robinson

Abstracted from a paper read before the Quiz Club, Pittsburgh

HOW old is the earth? Nobody knows, but when in 1862 Lord Kelvin advanced the theory that it was at least 20 million years old the idea met with a storm of angry challenges; and Lord Kelvin was ostracized in certain quarters.

Today we listen to estimates that the age of the earth is a hundred times greater than Lord Kelvin advocated 80 years ago—and wonder.

Just now there is a remarkable consensus that the world is at least two billion years old.

If we assume the age of the earth at two billion years and the unit of 100 million years to be a *Day* in the life of the earth—as we now use the unit of *light years* without hesitation to measure stellar spaces—then we find that man appeared upon the earth in the last eight minutes, and the whole story of historic man—who appeared about 6,000 years ago—passes in the last five seconds of this earth's twentieth *Day*.

A cycle of the earth about the sun is inconsequential in the life of the earth, but is all-important in the life of man because it measures his year. And so the shadow of nature creeps into the life of man—and becomes a calendar. Man has quite generally measured and reckoned his years in the time it takes the earth to travel around the sun. We now know that at the present time it takes 365 days, 5 hours, 48 minutes and 46.15 seconds.

The oldest calendar is the Egyptian which began, according to the historian Breasted, in the year 4236 B.C., but the calendar which really made our present one was the Julian, patterned after the Egyptian, and adopted by Julius Caesar in the year 45 B.C. Julius Caesar appointed an astronomer to redetermine the year and to establish a new beginning for the year. Caesar was advised that the year was 365 days and 6 hours, which was right within 11 minutes and 14 seconds. This error, by the time of Pope Gregory in the sixteenth century, had cumulatively amounted to ten days, so that the calendar was again out of line with the seasons. Pope Gregory appointed a commission of astronomers who were able to make more accurate observations and their recommendations resulted in the Gregorian calendar, which began with the year 1582 A.D. and dropped ten days out of that year. This calendar has gradually become the calendar of most Christian countries, but there are still a few churches which adhere to the old Julian calendar and carry along its error. This error now amounts to 13 days and as a result these churches celebrate Christmas on

January 7 of the following year. There is an error of 26 seconds in the Gregorian calendar. It will amount to a day in about 3,300 years.

There have been developed literally thousands of calendars, yes, tens of thousands. The oldest calendar is the Egyptian, believed to date back to 4236 B.C., which is the oldest ascertained date in the life of historic man. The second oldest calendar is the Jewish which dates back to 3761 B.C., and the third is the Chinese which dates back to 2357 B.C. The Greek calendar began with the first Olympiad, 776 B.C., the Buddhist with the birth of Buddha, 563 B.C., and the Mohammedan with the flight of the the Prophet from Mecca, 622 A.D.

The Jewish calendar is most confused and irrational because it gives close adherence to the cycles of the moon and tries to reconcile them with the solar year. It is developed around the theory of a 19-year cycle which requires the addition of an intercalary month seven times during the 19 years to keep the year synchronized with the seasons. A similar plan was adopted by the Babylonians, perhaps first adopted by them. The Jewish year is not a standardized or uniform year, the extra month operating to make some of the Jewish years not 365 days but 385 days. For instance, the Jewish year which began on September 15, 1928, did not end on September 15, 1929. It ended on October 4, 1929. The Jewish calendar assumes that it began with the Creation. The other calendars start from some outstanding event in the history of man, usually the birth of a great leader.

The Mohammedan calendar is controlled by the moon and by the moon alone. To the Mohammedan the moon is all-important. The Mohammedan calendar, therefore, adopts the moon as the controlling factor in its year and 12 moon cycles make a Mohammedan year. This is, of course, 11¼ days short of the solar year. No attempt is made, as in the Jewish calendar, to reconcile these cycles, so the Mohammedan calendar moves nonchalantly through the seasons; and at the end of about 32 years the Mohammedan year is momentarily back again in step with the solar year.

When Julius Caesar took up the matter of calendar reform his job was to work out the individual months to add up to 365 days. We know that the old fifth month of the Roman year, Quintilis, at the request of Mark Antony, was changed to July in honor of the great Julius Caesar. We also know that the sixth month of the Roman year, Sextilis, was changed to August during the reign of Augustus Caesar. Why does February happen to have only 28 days? There is no logic or reason in it, and it operates to unbalance the half-years, giving us only 181 days in the first half of the year and 184 days in the last half of the year.

There still remains in our calendar a remnant not of the Julian calendar but of the Roman calendar of Numa Pompilius—which preceded the Julian calendar. He started the year on March the first. It was therefore,

in order for the seventh, eighth, ninth and tenth months of the year to be named in accordance with their appropriate Latin names, Septem-ber, Octo-ber, Novem-ber and Decem-ber, but when January marked the beginning of the year these months automatically became the ninth, tenth, eleventh and twelfth months of the year. The names no longer corresponded with the appropriate Roman numerals. Our present calendar still carries these names of the old Roman calendar which preceded the Julian calendar, notwithstanding that for some 2,000 years these months have ceased to be the seventh, eighth, ninth and tenth months of the year. This situation is not only one of historical interest but also it shows the persistence of established habits and practices, erroneous or otherwise, and suggests that perhaps it is high time for us to review the whole matter and to examine into the merits and present usefulness of our own calendar.

There is one aspect of our calendar which calls—and calls loudly—for further thought and consideration. I refer to the matter of calendar reform which has now ripened into the proposed "World Calendar." It may be interesting before going into the plan to note that there is an historical background for this calendar in two widely separated parts of the earth, not the present World Calendar but the embryo of it.

The Egyptians developed a year of 12 months, each having 30 days, and the extra five days they decided should be separate and unrelated to the 12 months, and should be a five-day holiday period given over to festivities, to enjoyment and to relaxation. By one of those remarkable happenings, "the long arm of coincidence," a quite similar plan was adopted by the early Mexicans or Mayans. The Mayan calendar had a year of 18 months of 20 days each and likewise had five extra days which came at the end of the year and were treated as extra days or holidays. Unfortunately, superstition laid on its heavy hand and led the Mayans to believe that the five days were days of trouble and of danger. Their belief, contrary to the Egyptians, destroyed any value which the five days might have had for human use or enjoyment.

The World Calendar has been developed as the result of years of thought and study of all the things that should influence and control calendars. It is the ripened fruit of all of the thinking of mankind upon the subject and properly related to the latest scientific determination of the year. It is planned to have this calendar adopted January 1, 1945.

The World Calendar divides the year into four equal quarters, corresponding to the four seasons. Each quarter consists of 91 days, each made up of three months, the first month having 31 days and the other two months each having 30 days. The four quarters of 364 days leave an extra day which is to be added at the end of December and to be known as Year-End Day, the new World Holiday, December W. It would be a general and world holiday. This day would always fall on an extra Saturday because in the new calendar each quarter begins on a Sunday and ends on a Saturday. The first month in each quarter has five Sundays. Leap year will be provided for, as re-

quired, by adding an extra day after the 30th of June. The 30th of June always comes on a Saturday, so that the extra day would constitute an extra holiday at that week-end. Every attempt is made to have holidays come at week-ends. Any given day in the year will always come on the same weekday in every other year. In order to present the merits of the proposed World Calendar we now have the *Journal of Calendar Reform*, published quarterly, the primary objective of which is to secure the adoption of The World Calendar in 1945. In the Third Quarter 1940 issue of the *Journal*, one of its advocates sums up the case for The World Calendar:

"The new World Calendar will give to each month 26 weekdays in addition to its Sundays, and the days will be marshalled into the following week in an orderly way. The first day of the year will always fall on Sunday, the first day of the week, and the last day will always fall on Saturday. In the same manner the first day of each of the four quarters of the year will fall on Sunday, and the last day of each quarter on Saturday. Each quarter will have forever 91 days, with 31 days allotted to the first month in it, and 30 days allotted to the other two. It will be a perpetual arrangement in which days and dates will sing together for they will be synonymous. . . . The World Calendar's sole idea is to eliminate the incongruities of the present calendar, to iron out its inconsistencies and irregularities, and to give it perfect form and perpetual balance. . . . Its mission is twofold, first as a progressive device in the revaluation of time, and secondly as a common denominator by which all races of men may speak together in the same language of time."

P. W. Wilson in his delightfully entertaining and instructive *The Romance of the Calendar* has so aptly said: "A calendar is the framework of any civilization, the time index for all business transactions and religious observances, the rule by which all daily life is regulated. . . ."

VASSAR HEAD APPROVES

By Dr. Henry N. MacCracken

There is no more reason why the calendar should not be regularized than there was formerly against the metric system. Tradition is surely no stronger in one case than another. The advantages of quicker calculation as to seasons and dates outweigh any sentimental objection to the change. The World Calendar seems to me a very practical compromise, and goes about as far as people are willing to go at this time in reform. Let me wish The World Calendar Association all success in the prosecution of the plan.

CALENDAR PAPER BRINGS "A"

By Louis Greene

I heartily agree with your plan of having a World Calendar. You can't know how much I hope that The World Calendar is developed and in use everywhere. I have written a term paper on various calendars, and I included your plan. Surprisingly enough, I got an "A" on the paper.

WORLD CALENDAR WOULD EASE BURDEN OF RATION-WORRIED HOUSEWIFE

From **Hagerstown Herald,** ***Maryland, February 2, 1943***

NESTLED along side the salt and pepper, the spices and cloves on the kitchen shelf, now come the pencil, the account book and the calendar, strange new companions for the housewife's pots and pans.

For now, with food point rationing an actuality, the housewife of World War II has two sets of books to keep. One accounts for dollars and cents in her weekly budget, and the other for the points in her war ration book No. 2. Of the two accounts, the latter presents the greater problem in meal planning and budgeting.

It has never been too much of a task to take the weekly food budget money and spread it into its various portions over the allotted period. But with a can of peas worth so many ration points, meat of various types, weights and grades soon demanding its share of the strictly rationed points, meal planning takes on involved significance.

Meals are going to have to be planned for the long haul. It is not at all inconceivable that if the present plans of the OPA are followed it will be necessary to purchase an entire "period" supply of canned or processed foods at practically the same time. Unfortunately this supply must be husbanded to last over a longer period of time than the city or other housewife is accustomed to.

Ration points can't be spent in the same proportion as money from the family budget. Money and ration points have little in common because prices charged for food may fluctuate but the points in the food ration book will remain distressingly static.

Homekeeping in the future will call for long-range planning. The canned, dried and frozen fruits, the canned soups or processed meats purchased Monday may have to be made to last far into the next month, and that is where the present calendar will add to today's kitchen confusion.

Take for example August with its five Sundays. Sundays call for extra food and extra planning. There is the usual heavy Sunday breakfast, followed by the big, lazy Sunday dinner. These two meals mean extra ration points. Yet these extra Sundays, scattered haphazardly through

the year, have not been taken into account by the OPA. Then, too, there is May with five Sundays and a holiday. May is a month that will call for a lot of figure work on the part of the housewife, turned accountant.

The solution to this mysterious new system of household, double-entry bookkeeping, says Howard Brooks, a New York restaurant owner, is to hasten the adoption of the ordered, perpetual World Calendar of 12 months and equal quarters. The World Calendar, advocated by several nations of South America as well as several European nations, has been studied and endorsed by business and professional men throughout the world. It divides the year into four equal periods, each quarter composed of three months. The first month in each quarter has 31 and the other two have 30 days.

With this equalized system of time-keeping, each month has 26 weekdays. Month-dates stay put and the weekdays and dates remain constant.

So Mrs. Housewife, with her ration point account book spread on the bread board and her budget money arranged in neat piles, would always know that the first month in each quarter included five Sundays, with each of the other two months a four-Sunday month.

The World Calendar Association, a non-profit organization formed in 1930, has enlisted the housewife to urge upon the government to adopt this simplified calendar for her future planning, now that America has become the granary of the world.

With The World Calendar in use, meal planning for the future will become a simple system instead of a haphazard, date-checking, bewildering problem; while the uncertainty of the present calendar will give way to orderly progress in the business and social world.

CHINA CALENDAR BAFFLES GIRLS

From New York Daily News, *February 19, 1943*

Girl reporters have been driving themselves daffy (or daffier) trying to figure out Mme. Chiang Kai-shek's age. In China, children are counted a year old the day they're born, and two years old the following January 1. A child born December 31, for instance, would be counted two years old after two days on earth.

Mme. Chiang was listed as 9, computed Chinese-fashion, when she was brought to this country in 1908. This would make her 44, Chinese-fashion. But many of our girls hold she is maybe only 42, Eastern War Time.

CURRENT PRESS COMMENT

1943 Has But One Friday the 13th; Yule on Saturday

Fargo (N. D.) Evening Forum
January 1, 1943

Despite the uncertainties that the year 1943 holds, it has a number of good features promised by the calendar.

To those who are superstitious, the 1943 calendar is cheering in offering only one Friday the 13th, in August.

There are four months which contain five Saturdays, good news for those paid by the week. January, May, July and October will be jackpot months for them.

Labor Day, Monday, September 6, and Christmas Day, Saturday, December 25, will provide double holidays—except for newspapermen who have to worry about putting out a Sunday edition on December 26.

July 4 falls on a Sunday—which won't make any difference to war workers who probably would have spent Independence Day making more ammunition had the day come in the middle of the week. Memorial Day, May 30, also is on a Sunday.

Armistice Day is Thursday, November 11, and Thanksgiving Day two weeks later, November 25.

Lent begins on Ash Wednesday, March 10, and Easter Sunday is April 25, last Sunday in the month.

World Calendar Director Addresses Elizabeth Clubmen

Elizabeth (N. J.) Daily Journal
February 19, 1943

Urging adoption of the new World Calendar as a means of increasing war production and streamlining war delivery, Emerson Brewer, Director of The World Calendar Association, speaking at a luncheon of the Kiwanis Club, pointed out defects and irregularities in the present calendar which hamper war production.

"The greatest objection to the present calendar is its shifting nature," said Mr. Brewer. "Days and dates never agree; weeks roam crazily in and out of the months; months are so different in length we must count them by reciting a childish rhyme; quarters vacillate between 90 and 92 days; half-years likewise are unequal, varying between 181 and 184 days."

Mr. Brewer explained the new World Calendar of 12 months and equal quarters and pointed out the ease of its adoption in 1944, with January 1, 1945, heralding the new era of time internationally.

"The military has given to civilians a new word, 'logistics,' which Lieutenant General Somervell defines as the art of getting the right number of the right men to the right place with the right equipment at the right time. Logistics has its place in civilian life as well," Mr. Brewer said. "Applied to civilian life it means to accomplish our tasks with the greatest efficiency, wasting no time, labor, effort, money and materials."

The Director of The World Calendar Association pointed out the advantages of definite dates year in and year out in the payment of taxes, in store accounting, in pay-roll calculations, and in school and educational planning.

He spoke of the enthusiasm with which this new calendar rearrangement had been received by leaders in the field of manufacturing, retailing, insurance, accounting and statistics, because plans and systems once established could be retained and followed without change year after year.

The orderliness of the new World Calendar arrangement appeals especially to the housewife, he said, because of the ease with which family budgets, holidays, vacations, and even meal planning under wartime rationing could be scheduled.

"There are three matters which give us great concern today," he concluded, "the winning of the war as soon as possible, the adjustment of our affairs to meet increasing taxes and the plan for a just and durable peace. The new World Calendar, planned, constant, orderly, with little change in our present calendar conception, becomes a definite aid in the accomplishment of these purposes."

EXCERPTS AND REVIEWS

The Time of Day

By DR. C. H. CLEMINSHAW

From The Griffith Observer, *Griffith Observatory, Los Angeles, February, 1942*

THE entrance of the United States into the war has increased our interest in how time differs around the world. We on the Pacific Coast have become familiar with the fact that we are eight hours behind London. Now we realize that our watches are 16 hours behind those of Manila.

The rotating earth is the master clock for the whole world. The direction in which it turns we call east. We keep track of this turning by observing the apparent westward motion of the heavens which it causes. One rotation is called a day, but there are several different kinds of day depending on what celestial object is used as a time reckoner.

Different Kinds of Day

Suppose that the middle of a total eclipse of the sun occurs at noon and the star Regulus appears just above the eclipsed sun. The moon, the sun, and the star are all on the celestial meridian, which is an imaginary circle running north and south through the zenith. We point a telescope at them and leave it fixed in position. The turning of the earth quickly carries them out of the field of view. The next day we find that the three objects have separated. Assuming that we could see a star so close to the sun, we see that the sun is no longer directly below Regulus. The sun has moved about one degree to the east and appears in the telescope about four minutes after Regulus. The moon has moved about 13 degrees southeast of the star. By pointing our telescope a little farther south, we can see the moon cross the meridian nearly an hour after the star.

The interval between two successive passages of a star across the middle of the field of view of our fixed telescope we call a sidereal day. It is the period in which the earth completes one rotation. The corresponding interval for the sun is a solar day, which is about four minutes longer than the sidereal day. The corresponding interval for the moon is a lunar day, which averages about 50 minutes longer than a solar day. If the moon rises at sunset today, it will rise about an hour after sunset tomorrow. It rises later each day, because it is moving rapidly eastward among the stars. That is due to its revolution around the earth, which is completed in a little less than a month. The sun also appears to move eastward with respect to the stars, but that is due to the earth's revolution around the sun once a year.

Sun Time

Since our ordinary affairs are regulated by the sun and not by the moon or stars, we use the solar day and solar time. However, the sun is not a reliable timekeeper. Its apparent eastward motion with respect to the stars is not uniform. There are two reasons for this. In January the earth is 3,000,000 miles nearer to the sun than in July, and it travels a little faster. This makes the sun seem to travel faster in winter than in summer. The other reason is that the earth's equator is inclined to its orbit. The sun's apparent annual motion on the celestial sphere is parallel to the equator at the solstices. At those times it makes more rapid progress to the east than when its motion is at an angle to the equator as in March and September. Only eastward motion affects the length of the day.

A Proposed World Calendar

From Nature, *London, September 26, 1942*

THE World Calendar Association, Inc., New York, has published details for a proposed new calendar to commence in 1945 ("The World Calendar—A New Calendar for a New World"). On the basis of a 364-day year, the year is divided into four quarters, each 91 days. The first month of each quarter contains 31 days and each of the others 30 days, and January, April, July and October contain each

31 days. Every year and in consequence every quarter begins on a Sunday, and it is suggested that the national holidays of every country can be arranged to come on Mondays, if the people wish it, thus producing long week-ends. Christmas Day falls on Monday every year, and it is suggested that Easter should be the second Sunday in April, that is April 8. As a result of fixing Easter for this date, the other movable Christian festivals, Ash Wednesday, Good Friday, Ascension Day, Whitsunday, etc., would occur on the same date every year. Such a stabilization of the hitherto movable festivals would place Advent Sunday on December 3 and Trinity Sunday June 3—exactly six months apart. The 365th day will be at the end of December and it is recommended that it should be designated as a World Holiday by all countries accepting the new calendar. This World Holiday is an extra Saturday, called the Year-End Day. Leap-Year Day is placed at the end of June, in the middle of the year, and it is also an extra Saturday and a World Holiday. The beneficial effects of the reform are explained in connection with the various phases of life—industry, labor, government, law, finance, science, etc.; and an appeal is made to the citizens of different countries to lend their support to the scheme.

The Back Yard

By PAUL TALBOT

From United Business Service, *Boston, January 2, 1943*

AT the beginning of a New Year, I want to emphasize again the need for a revised and *improved calendar.*

This is not a new subject for discussion in the "B. Y.," and I give you warning that I will repeat, reiterate, and re-emphasize it from now until January 1, 1945, which is the ideal date for the new World Calendar to be established.

Out of many years of study, discussion, and controversy, The World Calendar has emerged as the almost unanimous choice of business men, religious leaders, scientists, statisticians, and the general public. This calendar continues the 12-month year, and has four equal quarters of 91 days each. Every month has 26 weekdays (exclusive of Sundays) and "month-dates" fall on the same "weekdays" from year to year. Every year, and every quarter, begins on Sunday and ends on Saturday.

The annual "odd day" falls between December 30 and January 1 and is called Year-End Day. The plan is to make this a world-wide Holiday. Similarly, every fourth year, a Leap-Year Day would fall between June 30 and July 1 and would also be a Holiday.

If you desire further information concerning the details or workings of this calendar, I suggest that you write to The World Calendar Association, 630 Fifth Avenue, New York City, and ask for the *Journal of Calendar Reform.*

But information or no information, be sure to keep in mind that the ideal time to make this calendar change is December 30, 1944, because on that date the Gregorian and World Calendars coincide. Plan now to *start the new World Calendar on January 1, 1945!*

World Calendar Now

From a Letter by Will Irwin

PEOPLE of light and leading remember that when the war of 1914-18 ended, neither statesmen nor voters had paid much attention to the terms of peace. Hence the mistakes of the hurried Versailles Treaty. The far-seeing are beginning to encourage discussion of the peace terms when the Axis powers are beaten. . . . Most of these people assume that we must set up a new League of Nations without the flaws of the old. Agitation for a new World Calendar seems to be prescribed for this time!

United States Should Lead

From Missoula (Mont.) Missoulian, *August 4, 1941*

IT is hoped that the United States will take the lead on The World Calendar within the near future so that the plan can be adopted by 1945. So do we. There are no disadvantages in the new calendar that are not less than those of the one we have been using for so long, itself an improvement upon others that came before it, and we believe that it has many advantages.

FROM THE MAIL BAG

World Federation is coming and is the most vital problem of our day. I see now how tremendously important World Calendar is and how necessary that we function in a world community under a new time plan. Your work is essential to ours and I am with you heart and soul.—Mary E. Hughes, N. Y. State Committee for World Federation, New York City.

I think that your World Calendar is a splendid idea. Certainly it would save valuable time and red tape would be much less in our industries, businesses, and even private lives. How convenient it would be to know that any given date would always fall on the same day of the week! I have a contribution for your 1945-or-bust campaign that I certainly hope you can use. Possibly you would not consider it because I am only 14 years old in February but I feel sure that you will.—Lois Bancroft, Walden, N. Y.

Your brilliant idea, "Don't sabotage time," is one of the timeliest I have heard in a long time. I find women greatly interested in The World Calendar. It is certainly one of the "Peace" movements for which women can work. I hope I shall live to see The World Calendar in effect.—Mrs. John M. Phillips, Past President, Pa. Fed. of Women's Clubs, Pittsburgh.

Let us, by the adoption of The World Calendar, demonstrate to all future generations that although we of the twentieth century have not advanced sufficiently to settle our major differences peacefully we do have dreams of world concord and unity.—Alfred Vye Parminter, Principal, Millside School, New Westminster, B. C., Canada.

I have been for many years interested in The World Calendar. I thoroughly approve of it and I look forward to seeing it introduced before I pass away. Everyone who understands The World Calendar prefers it, I believe, to the present calendar. —Dr. F. W. Bradley, Dean, Coll. of Arts and Science, Univ. of S. C., Columbia.

I run my own insurance office and as a businessman, your World Calendar has a lot of appeal.—W. Tallmadge Bullock, Mechanicville, New York.

Your World Calendar is a very good idea and I will assist you to the best of my ability.—G. R. Trygg, Sec'y-Treas., McGregor Wholesale Grocery, McGregor, Iowa.

I sincerely hope that acceptance of The World Calendar will come with peace, if not before. It would be fine to have a new start.—A. J. Hills, Department of Labor, Ottawa, Canada.

You are at liberty to mention me as one who is enthusiastically in favor of The World Calendar. In past years I have written several articles and have spoken several times in favor of this calendar.—K. C. Leebrick, Pres., Kent State University, Ohio.

I am really impressed with the clarity, freshness—and particularly the timeliness —of this new booklet [*The World Calendar, A New Calendar for a New World*]. It ought to go a long way toward gaining new converts for The World Calendar and strengthening the enthusiasms of those of us who have been long enlisted in the cause.—Prof. Bristow Adams, Cornell University Agricultural Experiment Station, Ithaca, N. Y.

With so much distraction due to the World War, I presume it is difficult to get people more actively interested in the important work of calendar reform. But I see no reason on that account for relaxing in the effort. Perhaps this item may find a place on the agenda when the statesmen of the world meet again to negotiate a new peace treaty.—J. T. Madden, School of Commerce, Accounts, and Finance, New York Univ.

The World Calendar will serve its purpose in bringing thinking people together again in a new pledging of cooperation for a better civilization.—J. W. Musselman, Secy., Cal. Drycleaners' Assn., Oakland.

Think it is a good idea.—Holmes Meade, Pres., Nat'l Reserve Life Insurance Co., Topeka, Kan.

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